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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,282	04/22/2008	Mitsunori Takeshita	060711	8499
23850 7590 04/11/2012 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. 4th Floor WASHINGTON, DC 20005				
EXAMINER				
FORD, NATHAN K				
ART UNIT		PAPER NUMBER		
1716				
MAIL DATE		DELIVERY MODE		
04/11/2012		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/593,282

Applicant(s)

TAKESHITA ET AL.

Examiner

NATHAN K. FORD

Art Unit

1716

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2012.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1,4-7,9 and 12-20 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1,4-7,9 and 12-20 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 18 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-856)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Applicant's Response

Acknowledged is the applicant's request for reconsideration, filed January 26, 2012. Claims 1, 4-5, 7, 9, 13, and 15-18 are amended; claims 2-3, 8, and 10-11 are canceled. The amendments are sufficient to overcome the USC 112 rejections elaborated in the prior Office letter. However, the amendments to claims 15-17 raise new 112 concerns, as detailed below.

Those amendments drawn to system entrance by "maintenance personnel" are sufficient to overcome the rejections elaborated in the prior Office letter. However, after further search, new rejections have been submitted below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Each of claims 15, 16, and 17 recite an opening section and door "positioned so that the dimension from the front side to the rear side of the transfer chamber as measured from the opening section and door to the rear side, gradually decreases...when viewed horizontally."

This limitation is ambiguous since the limitation, "when viewed horizontally," has no meaning given that a reference point has not been provided, and that *horizontal* can refer to any cardinal direction.

To resolve the issue, the examiner suggests specifying a transfer chamber having a length and a width, wherein the length is the dimension between the front and rear side. Then, one can recite that the length of the transfer chamber gradually decreases along width-direction closer to the cleaning unit side. The claim will be examined in this spirit until the issue is resolved.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-7, 9, and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takanabe, US 5,277,579, in view of Tometsuka et al., US 6,143,040.

Claims 1, 9, 13, 20: Takanabe discloses a substrate processing apparatus comprising a load lock chamber (200) and a transfer chamber (300) provided in order from a rear side within a case (3, 26-30; Fig. 2). Further, a processing chamber (100) is provided above the load lock chamber (Fig. 3). Takanabe does not teach an opening section for the entry of maintenance personnel. Supplementing this deficiency is Tometsuka, who discloses an analogous processing system which further comprises an entry door (47) formed in the transfer region to enable access by maintenance personnel (5, 33-40; Fig. 16). By providing direct access to the system, repairs and maintenance can be performed efficiently with minimal downtime (6, 19-29). For at least these reasons, it would have been obvious to the skilled artisan to provide an access door to Takanabe's transfer chamber. Lastly, it should be noted that the precise location of the door is a matter which can be resolved through routine experimentation, and it has also been held that rearranging the parts of an invention involves only routine skill in the art (*In re Japikse*, 86 USPQ 70).

Claim 4: As the door is formed on the exterior of the case, it must face the exterior of the case, tautologically.

Claims 5, 14: The rejection of claim 1 substantially addresses the limitations presented here. However, chamber 200 of Takanabe can also be considered a standby chamber comprising a supporting jig (B) (4, 13-20). Takanabe further discloses a carrier load mount (400) which holds a substrate at a position offset relative to the system center line (Fig. 2).

Claim 6: With reference to Figure 2, Takanabe installs a transfer device (3) at one side of the transfer chamber (300) and an aligner device (32) at the other (5, 24-46).

Claim 7: It does not appear that Takanabe's transfer device is arranged on the line connecting the standby chamber and load mount, as claimed. Even so, only the most trivial modification to the placement of the device would be necessary to satisfy this limitation, and it has been held that rearranging the parts of an invention involves only routine skill in the art (*In re Japikse*, 86 USPQ 70).

Claim 12: The cleaning unit (P3), aligner device (32), and transfer device (3) of Takanabe are arranged in sequence along the flow direction of the air blown by the cleaning unit (Fig. 2).

Claims 15-17: Takanabe cleans the atmosphere of the transfer chamber by supplying a gas thru a supply pipe (P3) (3, 42-54). The transfer chamber does not vary in length along its width direction, however, as claimed. Even so, only

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the most trivial modification to the shape of the chamber would be needed to satisfy this limitation, and it is the position of the Office that a recitation which constitutes a mere change in shape does not represent a patentable advance, as it has been held that the configuration of the claimed element is a matter of choice which a person of ordinary skill would have found obvious (*In re Dailey*, 149 USPQ 47).

Claims 18-19: As delineated by Figure 2 of Takanabe, the load lock chamber (200) is offset to one side with respect to the system center line. Regarding the door placement, there are two possible sides at which it could be incorporated within Takanabe's transfer chamber: on the side opposite the load lock, or on the same side as the load lock. Given that there are only two alternatives, it is position of the Office that one of ordinary skill, through routine experimentation, would have realized an embodiment wherein the door is place opposite the load lock side.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan K. Ford whose telephone number is 571 270 1880. The examiner can normally be reached on M-F, 8:30-5:00 EDT. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh, can be reached at 571 272 1435. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

/N. K. F./

Examiner, Art Unit 1716

/Karla Moore/

Primary Examiner, Art Unit 1716